Access DB# 132156

SEARCH REQUEST FORM

Scientific and Technical Information Center

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f more than one search is submitted, please prioritize searches in order of need.							
Please provide a detailed statement of the Include the elected species or structures	ne search topic, and descri , keywords, synonyms, ac ns that may have a special	ibe as specifically as possible the subject matter to be searched. cronyms, and registry numbers, and combine with the concept or					
Title of Invention:							
Inventors (please provide full names)	:						
Earliest Priority Filing Date:							
For Sequence Searches Only Please incappropriate serial number.	lude all pertinent informatio	on (parent, child, divisional, or issued patent numbers) along with the					
		SCIENTIFIC REFERENCE BR Sci. & Tech. Info. Cntr					
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STAFF USE ONLY	Type of Search	Vendors and cost where applicable					
Gearcher: Ed	NA Sequence (#)	·					
Searcher Phone #:	AA Sequence (#)						
Searcher Location:	Structure (#)	Questel/Orbit					
Date Searcher Picked Up:	Bibliographic	Dr.Link					
Date Completed: 9-17-04	Litigation	Lexis/Nexis					
carcher Prep & Review Time:	Fulltext	Sequence Systems					
Clerical Prep Time:	Patent Family	WWW/Internet					

PTO-1590 (8-01)

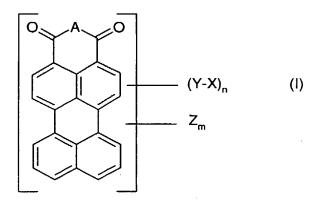
BASF Aktiengesellschaft

January 9, 2004 B01/0825US IB/KO/BrD/els

Claims

5

1. A perylene derivative of the formula (I)



10 where

15

20

A has the definition O, CH_2 or NR^1 with R^1 being H, aryl, aralkyl, heteroaryl, cycloalkyl, C_1 - C_{22} alkyl,

Y, each identical or different, is -CO₂, -CONR², -SO₃ or -SO₂NR², R² being H, aryl, aralkyl, heteroaryl, cycloalkyl, C₁-C₂₂ alkyl, preferably C₁-C₆ alkyl, alkylamine, in which the amine function may if desired carry one or more further substituents and may be part of a polyamine,

X, each identical or different, is a predominantly sterically stabilizing and/or electrostatically stabilizing substituent,

Z, each identical or different, represents where present one or more further substituents, selected from the group consisting of alkyl, alkoxy, and aryloxy groups and halogens, especially chlorine and bromine,

n is an integral number greater than or equal to 1, and m is an integral number greater than or equal to 0.

Smith, Teresa (ASRC)

From:

Green, Anthony (AU1755) Thursday, September 09, 2004 5:24 PM STIC-EIC1700 Structure search 10/759,206

Sent: To: Subject:

Please do a structure search for the perylene derivative found in claim 1 of 10/759,206, thanks

Anthony Green Primary Patent Examiner AU 1755 **REMSEN-9C15** (571)272-1367

```
=> file reg

FILE 'REGISTRY'

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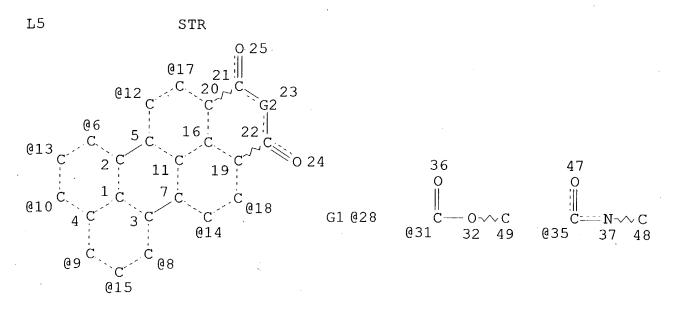
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L1
             1 S E3
L2 .
              STR 198-55-0
     FILE 'REGISTRY'
           50 S L2
     FILE 'LREGISTRY'
L4
               STR L2
L5
               STR L4
     FILE 'REGISTRY'
L6
          1 S L5
    FILE 'HCAPLUS'
L7
          127 S KONEMAN ?/AU OR KONEMANN ?/AU OR KOENEMAN ?/AU OR KOENE
L8
          191 S HEES ?/AU
L9
          2193 S PIERRE ?/AU
L10
             1 S L7 AND L8 AND L9
               SEL L10 1 RN
    FILE 'REGISTRY'
L11
            14 S E1-E14
L12
        17 S L5 FUL
               SAV L12 GRE206/A
    FILE 'CAOLD'
            0 S L12
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FILE 'CAOLD'
L13 0 S L12
FILE 'ZCAPLUS'
L14 9 S L12

FILE 'REGISTRY'

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Page 1-A

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Page 1-B

VAR G1=31/35/41/46

VAR G2=O/C/N

VPA 28-18/14/8/15/9/10/13/6/12/17 U

NODE ATTRIBUTES:

NSPEC IS RC AΤ 43 NSPEC IS RC AT 48 **NSPEC** IS RC TA49 NSPEC IS RC AT51 DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 40

STEREO ATTRIBUTES: NONE

L12 17 SEA FILE=REGISTRY SSS FUL L5

100.0% PROCESSED 82 ITERATIONS

SEARCH TIME: 00.00.01

17 ANSWERS

=> file zcaplus FILE 'ZCAPLUS' USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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L14 ANSWER 1 OF 9 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2004:631314 ZCAPLUS

DOCUMENT NUMBER:

141:175546

TITLE:

Perylene derivatives and their use as

dispersants

INVENTOR(S):

Konemann, Martin; Hees, Ulrike; Pierre, Valerie

BASF Aktiengesellschaft, Germany

SOURCE:

Fr. Demande, 54 pp.

CODEN: FRXXBL

DOCUMENT TYPE:

Patent

LANGUAGE:

French

1

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT ASSIGNEE(S):

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 FR 2850651	A 1	20040806	FR 2004-50162	
11(2000001	AI	20040000	FK 2004-30162	200401
DE 102004004813	A1	20040812	DE 2004-102004004813	28
DDIODINY ADDIN THEO.			DD 0000 10000016	200401 30
PRIORITY APPLN. INFO.:			DE 2003-10303916 A	200301 31

$$\begin{bmatrix} O & A & O \\ & & &$$

AΒ Perylenes I [A = 0, CH2, or NR1; R1 = H, C \leq 22 aryl, C≤22 aralkyl, C≤22 heteroaryl, C≤22 cycloalkyl, or C1-22 alkyl; Y = CO2, CONR2, SO3, or SO2NR2; R2 = H, (substituted) $C \le 22$ aryl, (substituted) $C \le 22$ aralkyl, (substituted) C≤22 heteroaryl, (substituted) C≤22 cycloalkyl, or (substituted) C1-22, X = steric stabilizing groups (such as polymeric) and(or) electrostatic stabilizing groups (such as ammonium groups or protonizable groups); Z = alkyl, alkoxy, aryloxy, or halo; $n \ge 1$; $m \ge 0$] are manufd. by reaction of appropriate perylene derivs. contg. COCl or SO2Cl groups to replace these latter groups with the X-Y groups and are useful as dispersants for org. pigments. A typical I was manufd. by heating 16.1 g perylene-3,4-dicarboximide 3 h with 67 g ClSO3H at 55°, adding 11.0 g thionyl chloride dropwise at 55°, stirring 15 min, and reacting the resulting 9-sulfonyl chloride deriv. with N,N-dimethylaminopropylamine at 0-10° in the presence of Et3N.

IT 733009-72-8P 733009-73-9P 733009-74-0P 733009-75-1P 733009-77-3P

Ι

(perylene derivs. having polymeric and (or) ammonium or protonizable groups for dispersants for org. pigments)

RN 733009-72-8 ZCAPLUS

CN INDEX NAME NOT YET ASSIGNED

$$Me_2N-(CH_2)_3-NH-S$$

RN 733009-73-9 ZCAPLUS CN INDEX NAME NOT YET ASSIGNED

$$\mathsf{Et_2N-CH_2-CH_2-NH-S}$$

RN 733009-74-0 ZCAPLUS CN INDEX NAME NOT YET ASSIGNED

$$\begin{array}{c|c} & & & & \\ & & & \\ N &$$

RN 733009-75-1 ZCAPLUS CN INDEX NAME NOT YET ASSIGNED

$$Me_2N-(CH_2)_3-NH-C$$

RN 733009-77-3 ZCAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[(2,3-dihydro-1-oxo-1H-perylo[3,4-cd]pyridin-8-yl)sulfonyl]- ω -hydroxy- (9CI) (CA INDEX NAME)

HO
$$CH_2-CH_2-O$$
 n n n

IT 733009-72-8P 733009-73-9P 733009-74-0P 733009-75-1P 733009-77-3P

(perylene derivs. having polymeric and (or) ammonium or protonizable groups for dispersants for org. pigments)

L14 ANSWER 2 OF 9 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:86691 ZCAPLUS

DOCUMENT NUMBER:

138:403066

TITLE:

Langmuir films of dichroic dyes with fluorescent

properties

AUTHOR(S):

Biadasz, A.; Hertmanowski, R.; Martynski, T.;

Inglot, K.; Bauman, D.

CORPORATE SOURCE:

Faculty of Technical Physics, Poznan University

of Technology, Poznan, 60-965, Pol.

SOURCE:

Dyes and Pigments (2003), 56(3), 209-217

CODEN: DYPIDX; ISSN: 0143-7208

PUBLISHER:

Elsevier Science Ltd.

DOCUMENT TYPE:

Journal

LANGUAGE:

English

Langmuir films of various dyes, namely derivs. of AB 3,4,9,10-perylenetetracarboxylic acid and 3,4,9perylenetricarboxylic acid, derivs. of naphthalenedicarboxylic acid, and derivs. of naphthoylenebenzimidazole were investigated. pressure-mean mol. area isotherms were recorded from which the alignment of the mols. in a monomol. layer at the air-water interface was detd. It was found that both the stability and the rigidity of the monolayer are strongly affected by the mol. structure of the side groups substituted on the skeleton of the mol.

ΙT 182306-28-1 182306-33-8 220613-93-4

(Langmuir films of dichroic dyes with fluorescent properties)

RN182306-28-1 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8,9-dicarboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, dimethyl ester (9CI) INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{-}\text{CH}_2\text{-}\text{CHMe}_2 \\ \text{MeO-C} \\ \text{O} \\ \text{O} \\ \text{O} \end{array}$$

RN 182306-33-8 ZCAPLUS

1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(3-CN methylbutyl)-1,3-dioxo-, cyclohexyl ester (9CI) (CA INDEX NAME)

RN 220613-93-4 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, octyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2-\text{CH}_2-\text{CHMe}_2 \\ \text{Me- (CH}_2)_7-\text{O-C} \\ \text{O} \end{array}$$

IT 182306-28-1 182306-33-8 220613-93-4

(Langmuir films of dichroic dyes with fluorescent properties)

REFERENCE COUNT:

35

THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L14 ANSWER 3 OF 9 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:403549 ZCAPLUS

DOCUMENT NUMBER:

136:403146

TITLE:

Perylene-3, 4, 9-tricarboxylic acid imides, their

production and their fluorescent dye

applications

INVENTOR(S):

Langhals, Heinz; Suessmeier, Frank

PATENT ASSIGNEE(S):

Germany

SOURCE:

Ger. Offen., 20 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10038672	A1	20020529	DE 2000-10038672	
	,			200008 08
PRIORITY APPLN. INFO.:	•		DE 2000-10038672	
				200008

OTHER SOURCE(S):

CASREACT 136:403146; MARPAT 136:403146

$$R^5$$
 R^6
 R^{1-N}
 CO_2R^2

AB 3,4,9-Perylenetricarboxylic acid imides (I; R1-R6 = H, halogen, org. group) are obtained from the corresponding 3,4,9,10-perylenetetracarboxylic acid imide anhydrides in a single-stage synthesis by a partial decarboxylation with copper powder. I are characterized by intense fluorescence, good lightfastness, and easy monofunctionalizability. In an example, 9-carboxy-N-(1-hexylheptyl)-3,4-perylenedicarboximide was prepd. and the carboxy group was modified to give the acid chloride, diethylcarboxamide, and Me ester; all the compds. were red.

Ι

IT 334473-82-4P

(red byproduct; prodn. and derivatization of carboxyperylenedicarboximide fluorescent dyes)

RN 334473-82-4 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxamide, 2-(1-hexylheptyl)-2,3-dihydro-N,N-dimethyl-1,3-dioxo-(9CI) (CA INDEX NAME)

IT 334473-77-7P 334473-78-8P

(red dye; prodn. and derivatization of carboxyperylenedicarboximide fluorescent dyes)

RN 334473-77-7 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxamide, N,N-diethyl-2-(1-hexylheptyl)-2,3-dihydro-1,3-dioxo-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{)}_5\text{-Me} \\ \text{CH- (CH}_2\text{)}_5\text{-Me} \\ \text{N} \\ \text{O} \end{array}$$

RN 334473-78-8 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2-(1-hexylheptyl)-2,3-dihydro-1,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)

IT 334473-82-4P

(red byproduct; prodn. and derivatization of carboxyperylenedicarboximide fluorescent dyes)

IT 334473-77-7P 334473-78-8P

(red dye; prodn. and derivatization of carboxyperylenedicarboximide fluorescent dyes)

L14 ANSWER 4 OF 9 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:94743 ZCAPLUS

DOCUMENT NUMBER:

134:297153

TITLE:

Novel fluorescence labels: the synthesis of

perylene-3,4,9-tricarboxylic imides

AUTHOR(S):

Sussmeier, Frank; Langhals, Heinz

CORPORATE SOURCE:

Department fur Chemie der Universitat Munchen,

Munchen, 81377, Germany

SOURCE:

European Journal of Organic Chemistry (2001),

(3), 607-610

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER:

Wiley-VCH Verlag GmbH

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 134:297153

AB Perylene-3,4,9-tricarboxylic imides are prepd. in a one-step synthesis from perylene-3,4,9,10-tetracarboxylic 3,4-anhydride 9,10-imides by partial decarboxylation with copper powder. The imides are of interest as labels because of their intense fluorescence and lightfastness and their easy monofunctionalization. A derivatization of amines and alcs. with these compds. is demonstrated.

IT 334473-82-4P

(byproduct; prepn. of perylenetricarboxylic imide fluorescence labels)

RN 334473-82-4 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxamide, 2-(1-hexylheptyl)-2,3-

dihydro-N, N-dimethyl-1, 3-dioxo- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH2} \text{ 5-Me} \\ \text{CH- (CH2)} \text{ 5-Me} \\ \text{N} \\ \text{O} \\ \text{$$

IT 334473-78-8P

(light red fluorescent dye; prepn. of perylenetricarboxylic imide fluorescence labels)

RN 334473-78-8 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2-(1-hexylheptyl)-2,3-dihydro-1,3-dioxo-, methyl ester (9CI) (CA INDEX NAME)

IT 334473-77-7P

(red fluorescent dye; prepn. of perylenetricarboxylic imide fluorescence labels)

RN 334473-77-7 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxamide, N,N-diethyl-2-(1-hexylheptyl)-2,3-dihydro-1,3-dioxo-(9CI) (CA INDEX NAME)

IT 334473-82-4P

(byproduct; prepn. of perylenetricarboxylic imide fluorescence labels)

IT 334473-78-8P

(light red fluorescent dye; prepn. of perylenetricarboxylic imide fluorescence labels)

IT 334473-77-7P

(red fluorescent dye; prepn. of perylenetricarboxylic imide fluorescence labels)

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 9 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:685686 ZCAPLUS

DOCUMENT NUMBER: 134:10789

TITLE: Linear dichroism of perylene derivatives in a

nematic liquid crystal

AUTHOR(S): Bauman, Danuta; Schulze, Hartmut; Kuball,

Hans-Georg

CORPORATE SOURCE: Faculty of Technical Physics, Poznan University

of Technology, Poznan, 60-965, Pol.

SOURCE: Liquid Crystals (2000), 27(10), 1357-1367

CODEN: LICRE6; ISSN: 0267-8292

PUBLISHER: Taylor & Francis Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB The polarized absorption spectra of derivs. of 3,4,9perylenetricarboxylic acid and of 3,4,9,10-perylenetetracarboxylic
acid dissolved in the nematic liq. crystal mixt. ZLI 1695 were
recorded as a function of temp. From these spectra, the directions
of the absorption transition moments with respect to the principle
axes of the order tensor, and the order parameters S* and D* for
perylene derivs. were detd. assuming a Cs or C2 point symmetry group

for the dyes mols. From a generalized equation describing properties of anisotropic phases, the conditions necessary to det. a complete set of the order parameters and the pieces of possible information that can be obtained from the polarized optical spectroscopy are discussed.

IT 182306-28-1 182306-30-5 182306-31-6

(linear dichroism of perylene derivs. in a nematic liq. crystal)

RN 182306-28-1 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8,9-dicarboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{CHMe}_2\\ \text{N} \\ \text{O} \\ \text{O} \\ \text{O} \end{array}$$

RN 182306-30-5 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2-ethyl-2,3-dihydro-1,3-dioxo-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

RN 182306-31-6 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(2-hydroxyethyl)-1,3-dioxo-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{-}\text{CH}_2\text{-}\text{OH}\\ \text{N} \\ \text{O} \\ \text{Et} \end{array}$$

182306-28-1 182306-30-5 182306-31-6 IT

(linear dichroism of perylene derivs. in a nematic lig. crystal) REFERENCE COUNT: THERE ARE 23 CITED REFERENCES AVAILABLE

23 FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

COPYRIGHT 2004 ACS on STN T₁14 ANSWER 6 OF 9 ZCAPLUS

ACCESSION NUMBER: 1999:50672 ZCAPLUS

130:188696 DOCUMENT NUMBER:

TITLE: Molecular orientation of perylene-like dyes in

liquid crystal 80CB

Bauman, Danuta; Mykowska, Ewa; Wolarz, Eryk AUTHOR(S):

CORPORATE SOURCE: Institute of Physics, Poznan University of

Technology, Poznan, 60-965, Pol. .

Molecular Crystals and Liquid Crystals Science SOURCE:

and Technology, Section A: Molecular Crystals

and Liquid Crystals (1998), 321, 777-791

CODEN: MCLCE9; ISSN: 1058-725X

PUBLISHER: Gordon & Breach Science Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The polarized absorption and fluorescence spectra of some dichroic fluorescent dyes (derivs. of 3,4,9-perylenetricarboxylic acid and 3,4,9,10-perylenetetracarboxylic acid) oriented in liq. crystal 80CB were recorded as a function of temp. From these spectra the order parameters <P2> and <P4> and orientational distribution function were detd. The conclusions about the influence of the mol. structure of the dyes on their orienting properties in uniaxial liq. cryst. phases were drawn.

182306-28-1 182306-29-2 182306-30-5 ΙT

182306-31-6 182306-33-8 220613-93-4

(mol. orientation of perylene-like dyes in liq. crystal 80CB)

RN182306-28-1 ZCAPLUS

1H-Perylo[3,4-cd]pyridine-8,9-dicarboxylic acid, CN

2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{CHMe}_2\\ \text{N} \\ \text{O} \\ \text{O} \\ \text{O} \end{array}$$

RN 182306-29-2 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8,9-dicarboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, dibutyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{CHMe}_2\\ \text{N} \\ \text{O} \\ \text{N} \\ \text{O} \\ \text{N} \\ \text{O} \\ \text{$$

RN 182306-30-5 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2-ethyl-2,3-dihydro-1,3-dioxo-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{O} \\ \text{N} \\ \text{O} \\ \text{$$

RN 182306-31-6 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(2-hydroxyethyl)-1,3-dioxo-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{O} \\ \text{CH}_2-\text{CH}_2-\text{OH} \\ \text{O} \\ \text{Et} \\ \text{O} \end{array}$$

RN 182306-33-8 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, cyclohexyl ester (9CI) (CA INDEX NAME)

RN 220613-93-4 ZCAPLUS

CN 1H-Perylo[3, 4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(3methylbutyl)-1,3-dioxo-, octyl ester (9CI) (CA INDEX NAME)

Me- (CH₂)
$$7$$
- O-C

182306-28-1 182306-29-2 182306-30-5 182306-31-6 182306-33-8 220613-93-4

> (mol. orientation of perylene-like dyes in liq. crystal 80CB) 27

REFERENCE COUNT: THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L14 ANSWER 7 OF 9 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:509224 ZCAPLUS

DOCUMENT NUMBER: 125:250361

TITLE: Perylene-like dyes in liquid crystalline media

AUTHOR(S): Mykowska, Ewa; Bauman, Danuta

CORPORATE SOURCE: Institute Physics, Poznan University Technology,

Poznan, 60-965, Pol.

SOURCE: Zeitschrift fuer Naturforschung, A: Physical

Sciences (1996), 51(7), 843-850 CODEN: ZNASEI; ISSN: 0932-0784

PUBLISHER: Verlag der Zeitschrift fuer Naturforschung

DOCUMENT TYPE: Journal

LANGUAGE: English AB

The spectral and electrooptical properties of some dichroic fluorescent dyes (derivs. of 3,4,9,10-perylenetetracarboxylic acid and of 3,4,9-perylenetricarboxylic acid) in isotropic solvents and nematic liq. crystals were studied. The order parameter of the dyes in the anisotropic matrixes was detd. by means of optical spectroscopy methods. Moreover, the influence of the dye addn. on the nematic-isotropic phase transition temp. of the pure host was investigated. Some of the dyes can be utilized in guest-host liq. crystal display devices.

ΙT 182306-28-1 182306-29-2 182306-30-5 182306-31-6 182306-32-7 182306-33-8

(properties of dichroic fluorescent perylene-like dyes in liq.

cryst. media)

RN 182306-28-1 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8,9-dicarboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, dimethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ CH_2-CH_2-CHMe_2 \end{array}$$

RN 182306-29-2 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8,9-dicarboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, dibutyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{-}\text{CH}_2\text{-}\text{CHMe}_2\\ \text{N} \\ \text{O} \\ \text{n-BuO-C} \\ \text{O} \end{array}$$

RN 182306-30-5 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2-ethyl-2,3-dihydro-1,3-dioxo-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ \\ N \\ \\ \text{Et} \end{array} \begin{array}{c} O \\ \\ O \\ \end{array}$$

RN 182306-31-6 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(2-hydroxyethyl)-1,3-dioxo-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{N} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{O} \\ \text{Et} \\ \text{O} \\ \end{array}$$

RN 182306-32-7 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, heptyl ester (9CI) (CA INDEX NAME)

$$Me-(CH_2)_6-O-C$$

RN 182306-33-8 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-carboxylic acid, 2,3-dihydro-2-(3-methylbutyl)-1,3-dioxo-, cyclohexyl ester (9CI) (CA INDEX NAME)

IT 182306-28-1 182306-29-2 182306-30-5 182306-31-6 182306-32-7 182306-33-8

(properties of dichroic fluorescent perylene-like dyes in liq. cryst. media)

L14 ANSWER 8 OF 9 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1995:708357 ZCAPLUS

DOCUMENT NUMBER:

123:86070

TITLE:

Pigment preparations with perylene derivatives

as dispersing agents

INVENTOR(S):

Hetzenegger, Josef; Henning, Georg; Erk, Peter

PATENT ASSIGNEE(S):

BASF A.-G., Germany

SOURCE:

Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

German

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 636666	A2	19950201	EP 1994-111339	199407
TD 626666	7.0			21
EP 636666	A3	19960306		
EP 636666	В1	20000524		
R: CH, DE, DK,	FR, GB	, LI		
DE 4325247	A1	19950202	DE 1993-4325247	
e S				199307
				28
US 5472494	A	19951205	US 1994-266383	20

199406

27

27

Α

JP 07070461

A2 19950314

JP 1994-175678

199407

PRIORITY APPLN. INFO.:

DE 1993-4325247

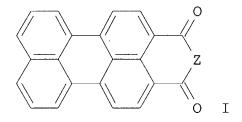
199307

28

OTHER SOURCE(S):

MARPAT 123:86070

GΙ



The perylene derivs. I (Z = 0, CH2, imino group) bearing 0-4 sulfo groups and 0 or 1 carboxy group are good dispersing agents for pigments. The use of N-methyl-3,4-perylenedicarboximide-9-sulfonic acid (prepd. from N,N'-dimethyl-3,4,9,10-tetracarboxylicdiimide via the monoimide) as a dispersing agent gave dispersions of pigments (e.g., C.I. Pigment Red 179) with good rheol. and tinctorial strength.

IT 165534-04-3P

(pigment prepns. with pervlene derivs. as dispersing agents)

RN 165534-04-3 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8-sulfonamide, 2,3-dihydro-1,3-dioxo-N-[2-(sulfooxy)ethyl]- (9CI) (CA INDEX NAME)

IT 165534-04-3P

(pigment prepns. with perylene derivs. as dispersing agents)

L14 ANSWER 9 OF 9 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:425304 ZCAPLUS

DOCUMENT NUMBER: 122:216547

TITLE: Perylenamidine-imide dyes

AUTHOR(S): Langhals, Heinz; Sprener, Sylvia; Brandherm,

Marie-Theres

CORPORATE SOURCE: Institut Organische Chemie, Universitaet

Muenchen, Muenchen, D-80333, Germany

SOURCE: Liebigs Annalen (1995), (3), 481-6

CODEN: LANAEM; ISSN: 0947-3440

PUBLISHER: VCH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Perylene-3,4:9,10-tetracarboxyic acid 3,4-anhydride-9,10-imides are condensed with primary diamines to a no. of new basic chromophores with amidine-imide structures. Lightfast dyes are obtained which exhibit a strong fluorescence in soln. The absorption and fluorescence spectra of the title compds. are bathochromically shifted compared to those of the perylene dyes.

IT 162109-64-0P

(prepn. and fluorescence of perylenamidine-imide dyes)

RN 162109-64-0 ZCAPLUS

CN 1H-Perylo[3,4-cd]pyridine-8,9-dicarboxylic acid, 2-(1-hexylheptyl)-2,3-dihydro-1,3-dioxo-, dimethyl ester (9CI) (CA INDEX NAME)